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ABSTRACT

Twenty books, pamphlets and booklets given by South Bend-Mishawaka, Indiana obstetricians and family practice physicians to expectant mothers were studied to determine their supportiveness towards breast feeding. Only booklets with four or more paragraphs on infant feeding were used. Successful and unsuccessful breast feeding and supportive and unsupportive information are defined and the past trend away from breast feeding and its effect on nursing mothers is reviewed. Results indicate that the majority of breast feeding information given to expectant mothers is unsupportive (55% unsupportive, 30% supportive, 15% ambivalent). This finding may be connected to the fact that many physicians rely on drug and formula companies to supply them with literature. Booklets of publishers with vested interests were compared to those of publishers with no vested interests. Findings showed that fewer supportive booklets and more unsupportive material came from publishers with vested interests. It is concluded that while supportive material is available and though progress has been made in informing women about breast feeding, pregnant women will need to seek physicians who are supportive of successful breast feeding. (SB)

A CONTENT ANALYSIS OF THE BREAST-FEEDING INFORMATION GIVEN BY THE PHYSICIANS IN THE SOUTH BEND-MISHAWAKA Area

by

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April, 1976

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We wish to thank all the physicians who gave all the information packets to me without any questions. Also, C. R. Duvall and my husband for their help in this endeavor.

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CHAPTER I

Between the 1920's and the 1960's artificial feeding became almost a cultural more. Very few mothers breast-fed their infants; and those who did, breast-fed for only a few months. There seemed to be a slant toward artificial feeding that permeated all the media. Pictures of mothers giving babies a bottle were shown on television, in movies, in magazines, and newspapers. Still today the large formula corporations have large advertising campaigns which are quite appealing. The corporations have money for research funding and free lunches at medical conventions (the physicians will of course remember them). They also have money to print free literature for the new and expecting mother. Every couple always receives a free sample of formula to take home, even if they are breast-feeding (the mothers will of course remember them). All people are subjected to these pressures. It is obvious why women who as children have observed only mothers bottle feeding would simply choose to bottle feed giving breast-feeding very little thought. Medical personal who may have been informed vaguely of the value of breast-feeding in medical school will also automatically recommend the bottle.

Now, there is a back - to - nature movement in the United States. There are natural cereals, natural candies, natural deodorants, and natural toothpastes. Breast-feeding ones offspring the natural way is also experiencing a revival. Many parents are

expressing a desire to feed their children "the natural way". Cultural mores do change. Even the media is beginning to reflect the change. Gloria in "All in the Family" is breast-feeding. The February cover of Psychology Today has a picture of a mother breast-feeding her infant. Yet, often mothers who try to breast-feed give in to the artificial method after a few weeks. Is the advice they receive from their physicians helping them orfrustrating them? Is the media providing information which is supportive of successful breast-feeding? This study has been devised to discover if the information they receive is supportive of successful breast-feeding.

The importance of supportive information can be seen by the following studies. For most mammals, the process of feeding their young is entirely instinctive. For humans, and most upper primates mimercy takes the place of instinct. (Gunther: 575) In human societies, the female subconsciously learns how to nurse when she observes other females suckling their offspring. . . . "The small size of present families and the conventions of modesty, combined with housing which allows privacy, have insured that most women do not as children watch a baby being suckled." (Gunther:575)

Ladas recently did an ex-post facto study with the La Leche League. She sent questionaries to League groups throughout the United States. She found that information about breast-feeding was related to the outcome of breast-feeding; and also found that lack of information was related to reasons why mother's stopped

nursing their infants. The study furthur indicated that it was preferable to have information both before and after birth. (Ladas:703)

Applebaum recognized that physicians also need inform tion about breast-feeding. He indicated that the physician can do much more than just hand out information and booklets. He can help the mother become more confident and relaxed toward breast-feeding. He can also dispell any fears she or her husband might have about breast-feeding. The couple can then make an informed decision whether she wants to breast-feed or not. (Applebaum:: 99)

ASSUMPTIONS

There are two main assumptions, that can be assumed to be true for this study:

1) Newly expectant mothers will read the literature given by their physicians, probably before they read anything else.

2) With new simple, already prepared formula available today, there is not much need for prior guidelines on how to give a bottle.

DEFINITIONS

There are several definitions which are important to the study. They are:

SUCCESSFUL BREAST-FEEDING: Successful breast-feeding is type of feeding that is practiced by the vast majority of mothers all over the world. It is a simple, easy process. When the baby is hungry, it is imply given a breast to suck. There is an abundance of milk and the supplu naturally adjusts itself to the child's growth and intake of other foods. It never occurs to the mother to worry about whether the baby is getting enough. The milk is ready and waiting to satisfy the baby's needs. . . . Mother and baby both enjoy the process. (Newton: 48)

UNSUCCESSFUL BREAST-FEEDING: Unsuccessful breast-feeding is a type of breast-feeding that is typical of the modern urban American mother. (1950) This type of breast-feeding is a difficult and tenuous process. There is constant worry about whether there is enough milk for the baby. The mother is expected to regulate her diet, her sleep, and her habits of living to help her make her milk good and plentiful. She worries about washing the nipples, about which breast to give, and when and how long to give it. She weighs the baby before and after feeding to see if baby got enough. She is advised to express (strip the breast) after each feeding. Milk is insufficient so bottles are resorted to to supplement the breast milk. Breast abscesses and engorgement and nipple fissures and erosions frequently cause extremes in pain. The pain the work the worry make early weaning part of the pattern. (Newton: 48)

ARTIFICIAL FEEDING: bottle feeding with no breast-feeding.

SUPPLEMENTARY FEEDING: any water, cereal, solids or formula that is given to the infant, other than breast milk.

COMPLEMENTARY FEEDING: A type of supplementary feeding, involving the practice of giving formula after a breast feeding.

SUPPORTIVE INFORMATION: that type of information which advocates practices which if followed may lead to unsuccessful breast- feeding.

UNSUPPORTIVE INFORMATION: that type of information which advocates practices which if followed may lead to unsuccessful breast-feeding.

BACKGROUND INFORMATION

There are many differences between breast-milk and the modern infant formula. (See table 1) There are also many components of breast milk that are not yet known. Breast milk is made for human consumption, as is; whereas, the modern formula is a modification of cow's milk. The protein in milk is too tough for an infant to digest. Cow's milk is not as quickly digested as breast-milk.

It normally takes three to four hours to digest cow's milk but, it takes between two and three hours to digest human milk. Breast milk contains lactose in greater proportion than cow's milk, thus the necessity in adding more to formula. It is thought that lactose is easier for the infant to digest, and its presence also makes it easier for the infant to utilize proteins; which may contribute to the fact that the breast-fed infant eliminates almost no protein. The digestion of lactose makes a acid base in the intestine. Bacteria cannot survive in an acid medium. The intestinal tract of the artificially fed infant on the other hand does support bacteria and other putrefactive elements. This is why the breast-fed infants stool does not have the usual stench. (Pryor: 48) There are very few cases of intolerance to human milk; cow's milk allergy is common. Colostrum, the thick, yellowish liquid which is present in the breasts before birth and for a day or more thereafter, plays a particularly vital role in protecting the infant against disease. Colostrum contains all the antibodies in the mother's blood, such as polio, measles and whopping cough. These protect the infant for six month even if he is not breast-fed after the first few days. Artificial feeding formulas do not have these antibodies.

TABLE 1. COMPARISON OF HUMAN MILK AND PREPARED FORMULA

MILK	PROTEIN	COH	FAT	ASH	CALORIES
Human	1.2 g.	7 g.	3.5g.	.21 g.	20/oz.
Formula	1.5 g.	7 g.	3.7 g.	.36 g.	20/oz.

These are the ingredients in a popular infant formula: Water, nonfat milk, lactose, soy and coconut oils, soy lecithin, carrageenan, vitamins(palmitate, ergocaliciferol, D-alpha-tocopheryl acetate, sodium ascorbate, folic acid, thiaminehydrochloride, riboflavim, niacinamide, pyridoxine hydrochloride, cyanacoblamin, and calcium pantothenate), and minerals (ferrous sulfate, cupric sulfate, zinc sulfate and manganese sulfate). Homogenized.
(Mead-Johnson label)

Applebaum has written a brief explanation for the layman of the anatomy of milk production and the physiology of the let-down reflex.

> The breast may be described as a forest consisting of ten to twenty trees (lactiferous duct systems) all intimately bound together by interweaving vines and vegetation (connective tissues, blood vessels, and lymphatics). Each tree is complete with its own root system (lactiferous sinuses or milk reservoirs) and each tree grows branches and twigs (ducts and ductules), which spread multiple clusters of leaves (alveoli or glandular secetory epitheleum) producing milk. About each of the clusters of leaves are fan-like vegetative tentacles (myo-epitheial cells) which squeeze milk from the leaves down the tree into the roots below the earth.
> (Applebaum: 99)

Let-down reflex is governed strictly by the act of sucking. The sucking of the infant sends a nervous impluse to the hypothalmic region of the brain, causing a secretion of oxytocin by the posterior lobe of the pituary gland into the blood stream. The main effect is that branched contractile cells contract down and bring the milk, that is hig in protein and fat content, into the ducts. (Applebaum: 100)

The signs of let-down reflex are: 1) milk dripping from breast before baby nurses; 2) milk dripping from opposite breast

than the one being sucked; 3) uterine cramps 4) tightening or pressure of breasts often felt as a needles and pins sensation. (Newton: 1348)

Newton and Newton found that milk ejection reflex or let-down reflex can be stopped or inhibited by fear, embarassement or tension. (Newton: 726) Many mothers recently have taken this biological fact as their excuse, saying they are too nervous to nurse. This is not necessarily true. There are many things one can do to aid the let-down reflex. Newton and Newton found in a 1950 study that they could artificially induce a let-down with oxytocin, even in inhibited mothers. Oxytocin is available in nasal spray to help mothers who seem too nervous. Hot showers can also help induce a let-down reflex. Some mothers use alcohol, in form of beer or wine to help them let-down their milk. Gunther noted that extremely full breasts will let-down easily. He also noted the temporary nature of the reflex. A mother who may have been inhibited for a feeding will have a hungry infant soon after the first feeding, but she can nurse again and probably experience a let-down. (Gunther: 23)

This reflex is easily conditioned as all reflexes are. The most appropriate conditioning reflex is the babies cry. The baby should be picked up and nursed immediately when he cries. Soon, just the babies whimpering will be enough to start the milk flowing. Some mothers condition the reflex to other things such as drinks, the rocking chair, or the clock. By conditioning the reflex, one

will also be strengthening it and the reflex will then be less influenced by outside factors. (Pryor : 33)

DESIGN AND RATIONALE

This study is a content analysis of the information packets given by the obstetricians and the family practice physicians to the expectant mother. Both care for the expectant mother, but the obstetrician is the specialist in caring for the pregnant women. The study is limited to the physicians in the South Bend Mishawaka area. All the literature that is given to the expectant mother will be obtained from each physician. For this study, only information that is relevant to infant feeding will be used, so if a booklet does not have more than four paragraphs it will not be included in the sample of the literature.

An attempt to evaluate the booklets objectively will be tried. The main emphasis will be to detrimine the supportiveness of the literature towards breast-feeding. These three factors will be used to detrimine the supportiveness of the booklets:

1) the number of pages devoted to breast-feeding will be compared to the number devoted to bottle feeding.

2) the number ofphotographs or pictures of mothers breast-feeding will be compared to number of photographs or pictures of mothers bottle feeding.

3) the number of supportive coments or statements will be compared with the number of unsupportive comments.

A continuous rating scale willbe used in order to classify the booklets after they have been evaluated. The following ratings were based upon arbitrary percentages:

80 - 100 Very Supportive or 1
60 - 79 Supportive or 2
40 - 59 Ambivalent or 3
20 - 39 Unsupportive or 4
0 - 19 Very Unsupportive or 5

The first two factors from the proceeding page received a rating based upon percentages of the comparisons. The third factor was considered to be the most important factor in determining the supportiveness of the booklet, so the rating obtained was multiplied by 3. In order to obtain a final rating, the mean will be computed from all the ratings.

In order to objectively evaluate the content of the booklets, criteria were established according to successful management techniques of breast-feeding. There are many differing opinions about the management techniques of breast-feeding. The criteria were determined after considering the various opinions and considering which techniques were the most natural or the way nature has intended for one to manage lactation. It was necessary to choose some factors which might be considered the extremes as these will certainly allow at least ninety-five percent success. Any techniques which were not mentioned in a booklet were not counted against it as long as the techniques mentioned were supportive. So, a booklet's content was considered very supportive if it had at least, 80 percent of the comments in the supportive category. Criteria were also established according to techniques which would lead to unsuccessful breast-feeding. Most of these techniques are those which are artificial or the opposite of those successful techniques. (See appendix for both complete lists and worksheet.)

LIMITATIONS

Most of the literature that this study is concerned with is a very specific type that is only available through physicians. Even though this sample from the physicians in South Bend - Mishawaka area will be fairly representative of the literature available through physicians, it is not representative of all the literature available on breast-feeding.

The main limitation is the one common to any content analysis. A content analysis has been equated with observations.(Khan:767) Even systematic observations like Flander's Analysis are subjective. The observers biases will limit the complete validity of the study.

ORGANIZATION OF THE REST OF THE STUDY

Chapter 2 presents a historical review of some of the infant feeding practices and also a review of the normative studies done in area of breast-feeding. There is also a review of the studies concerning the development of a rationale for breast-feeding. Chapter 3 presents the findings obtained after analyzing the booklets. Chapter 4 will conclude and summarize the design, rationle, and findings.

CHAPTER II

REVIEW OF LITERATURE

For centuries writers have been exclaiming the necessity of breast-feeding. Vincent found that as early as second century A. D. physicians were advising mothers to breast-feed their infants Vincent found that writers generally prefered breast-feeding over artificial feeding yet the articles kept coming. "The maintence of, and fluctuation in, the volume of literature was related to various ideas and events which encouraged mother toward or away from breast-feeding, and which consequently incited the verbalresponce of infant care writers favoring breast-feeding." (Vincent: 200)

Early literature about breast-feeding was mainly concerned with the high death rates of those who did not breast-feed, so in their articles the authors were exhorting mothers to breast-feed their infants. This exhortation from 1914 Infant Care seems to be a good example:

> Statistics gathered from this country and many others show that breast-fed babies have a much greater chance for life than those who are bottle fed, and also that the infant illnesses, not only those of the digestive tract but many other varieties, afflict bottle- fed infants much oftener and much more seriously than those who have breast-fed. (Infant Care : 32)

So, even though substitutes were available, they were frequently condemned. Even hiring of a wet nurse was condemned if the mother was able to feed her own child. (de Mause: 436) It was a mother's obligation to breast-feed her infant, if she didn't or couldn't

she felt extreme guilt.

Scientests quickly persued the challenge to improve bottle feeding for the mother who couldn't nurse her baby. Marriott, Lowenburg, Brennemann and Macy were some of the early researchers who found safer and nutrious formulas for infants. Improvements were also made in methods of refrigeration and transportation of milk. The government also improved inspection systems thus insuring safer, and cleaner milk. Experts also began investigating mother's milk. They found many thing which could help the nursing mother, such as how to increase the supply, and they found that emotional factors can inhibit ones milk production.

These improvements and discoveries created many changes in the feeding practices of many mothers. Bottle feeding became very fashionable in the twenties among the higher classes. Breast-feeding mothers were becoming unsure of themselves and seemed to be losing their milk.

There are many reasons for this sudden change in feeding practices. The decline in the death rate is certainly an important factor. The exhortations to mothers who did not breast-feed declined. After the 1920's the articles shifted from a concern for health and life to concern with the psychological.(Vincent: 200) Stendler analyzed the popular articles from 1890-1948 and found a radical shift from a sentimental, indulgent attitude toward children to a very strict and regimented attitude. ". . . the extreme sentimentality toward children of a generation before was replaced

by cynicism which frowned upon mothering and cuddling and the rocking chair." (Stendler: 131) Bottle feeding is more consistant with this attitude toward children than breast-feeding.

Another reason for the decline in breast-feeding during this time was that the recommended techniques for breast-feeding were better applied to artificial feeding. The recommendation that babies be fed on a four hour schedule undoubtly upset many babies who could not adjust because breast milk is usually digested sooner than four hours. The mothers were also upset and thought that there milk wasn't rich enough or that they didn't have enough. Which probably began a viscious cycle of worry, tension, no let-down reflex or inhibited one and then less and less milk. There were also many recommendations that the baby be trained to sleep through the night at an early age. The breasts need the added stimulation of night feedings to increase their supply; and also during the early weeks of lactation the mother needs to have the breasts emptied or she will become uncomfortably full. Another common recomendation which most likely caused mothers to not have enough milk was the addition of a supplementary bottle or relief bottle once a day. This practice is very poor one for several reasons. The baby may prefer the rubber nipple as it takes less work than the breast. This lengthens the time between nursings and so less stimulation and thus less milk produced. Its also a lot of trouble to make bottles, especially when preparing only one. Some of the physicians who wrote articles were advising mothers to weigh the baby before and after each feeding. Collidge

recomends: "It is advisable to weigh the baby before and after each meal in order to detrimine the quantity he is getting. If he gets too much, his feeding time may be cut down to 15 or even 10 minutes in place of 20 minutes." (Collidge: 64) This practice does not tell a mother anything, because breast-fed infants often more at one feeding and less at another. Another common practice was the emptying of the breasts after each feeding. This was to stimulate or increase the supply of milk. It does do this but a much more effective way is to let the baby empty the breast often as he needs to, then there will not be too much milk, which can decrease the supply. All of these practices go against the ways nature intended and usually end in a decrease in milk supply which will frustrate both mother and baby. Mothers began using the bottle which did not frustrate them.

There are a number of normative studies that attempted to access the popularity of the bottle and the decline of the breast. Sears, Maccoby and Levin found that in 1948 39 percent of the 379 women in the Boston area breast-fed; and of this 39percent only 15 percent breast-fed for more than three months.(Sears: 71) In 1963 Sabler did a normative study with 2,233 women in the Boston area. He found that 22 percent of the mothers attempted breast-feeding. Only 5 percent breast-fed for six months or more. He also found that women married to students had the highest incidents of breast-feeding. - 69percent. The upper class women breast-fed more than the lower class. (Sabler: 303) Meyer did an extensive study of breast-feeding in the United States in 1966. He also

compares this data to data from 1946 and 1956 studies. In 1966 18 percent breast-fed at the time they left the hospital; in 1956 21 percent did and in 1946 38percent were nursing at the time of their dismal from the hospital.

There is much data to support the hypothesis that more upper class women are breast-feeding again. Guthrie and Guthrie found that among 129 women from a small college community 61 were still nursing at two weeks of age, 23 had continued past age three months. (Guthrie: 482) Page found similar results in 1969. In the upper classes in New York hospital 67 and 61 percent of the mothers breast-fed. (Page: 74)

In analyzing these studies there is much that they do not show, for example no author made any distinction between successful breast-feeding and unsuccessful breast-feeding. Also, there is very little data beyond six months. These studies are a good indication of the decline in breast-feeding and the subsequent rise in bottle feeding. There was a hint of a reverse trend that has begun in the upper classes.

Salber did hypothesize that various attitudes, mores and practices of the people seem to go through a trickling down-ward process. They originate in higher levels and after many years, they do influence those with lesser deucational and economic advantages. Breast-feeding was almost universal in United States until 1920's then t e upper classes began to bottle feed while those in the lower classes clung to the older method. The same thing seems to

be happening with breast-feeding. Considering the data from the sixties, one could hypothesize that more women in the lower and middle classes are attempting to nurse. Even the formula companies are claiming that over 50 percent of the women are attempting breast-feeding.

There have been many articles written which claim that breast-feeding gives a baby security or is emotionally preferable to bottle-feeding. Neither Caldwell nor Schmitt found any studies which support a relationship between breast-feeding and the quality of personality. (Caldwell: 25) (Schmitt: 1489) Middlemore in her observations of many nursing couples found many different kinds of nursing couples. Brody also observed mothers and found that all mothers displayed different patterns of mothering. Brody described many mothers who seemed to achieve a close secure relationship with their child and were bottle feeding. There were some mothers who breast-fed but the child was not contended and nursed with difficulty. (Brody:319) If a mother was nursing unsuccessfully as defined in previous chapter, there might be constant fluctuations in amount of milk available. This mother would hardly impart a secure feeling to the infant. An infant who is fed by the clock every four hours might adjust or might be hungry and frustrated all the time or he may normally eat only every four hours.(rare in breast-fed infant) So, there are too many factors which need to be controlled before there will be any empirical evidence showing a relationship between breast-feeding

and a later quality of personality. Stendler, Erikson, Vincent, and Orlansky all conclude that it is the quality of the mothering relationship and not the method one uses which detrimined the personality of the child. Why does breast-feeding seem to continue when there are no proven psychological and physical reasons to breast-feed?

Women want to breast-feed. Men want their wives to breast-feed. There are many studies which have proven some pleasant side effects from breast-feeding. For most the desire to nurse comes from a desire to do what they think is best for their child. The same is true for those who choose to bottle-feed.

The following is a list compiled from many studies and articles of some of the pleasant side effects of breast-feeding:

1. Total breast-feeding is less expensive. Normal feeding costs of a bottle fed infant are 375 dollars.(Williams: 96)
2. Breast-feeding lessens a mothers chance of breast cancer. (Newton: 51)
3. Breast-fed infants have fewer alergies. (Applebaum:203)
4. Breast-feeding completely * provides a natural child spacing. (Kippley: 163)
5. Milk is always available, correct temperture and proper formula. No bottles or preparation needed.
6. Breast-fed infants are less likely to be constipated or have diarrhea. (Applebaum:205)
7. Breast-feeding hastens the return of the uterus to normal size. (Gunther: 9)
8. Breast-fed infants have fewer cavities. (Bryor: 63)

* No pacifers, no supplements for 6to 10 months, and sleep with infant at night and nurse.

9. Breast- feeding can be a sexually satisifing experience. Newton:

10. Breast-feeding takes less time than bottle feeding and all the preparation. (La Leche League: 10)

11. Mother always has an extra hand when breast-feeding, while bottle feeding takes two hands.

12. Breast-fed infants smell better, formula produces an odor that a breast-fed infant does't have. (Kippley: 73)

CHAPTER III

FINDINGS OF THE STUDY

Twenty different books, pamphlets and booklets were selected from about one hundred different pamphlets given by fifty-five physicians. These booklets had four or more paragraphs on infant feeding.

TABLE 2. RATINGS OF THE BOOKS

Rating	No.	%
Very Supportive	4	20
Supportive	2	10
Ambivalent	3	15
Unsupportive	6	30
Very Unsupportive	5	25
Total	20	100

The majority of the breast-feeding information given to the expectant mothers is in the unsupportive category. Fifty-five percent of the booklets were not supportive of breast-feeding. An individual analysis of several booklets is necessary though. Several booklets were not designed to give specific information about breast-feeding. Prenatal Care for example, is most concerned with pregnant women and problems of pregnancy. In the last few pages the author discusses some aspects of infant care very briefly.

The information given is not very supportive of breast-feeding. For example, under a section discussing factors which might help detrimine what method to use the author lists "If you produce a good supply of milk. . ." as an important factor. This is clearly unsupportive as almost 90 percent of the women will and do automatically produce milk and given a normal healthy infant the supply will be adequate to meet his needs. Two other books from the sample A Doctor Discusses Pregnancy and Expectant Motherhood are similar as they are designed to discuss prenatal care but only mention breast-feeding briefly. As the main subject was not breast-feeding but prenatal care one cannot expect these books to have much information on breast-feeding. The authors most likely did not know much about breast-feeding, but felt it should be mentioned. Better that the subject was not mentioned than to give information that is not helpful.

The other booklets are all concerned with breast-feeding or infant care. There are two pamphlets which are only concerned with bottle feeding, so obviously they will not have supportive information about breast-feeding. One booklet, Caring for Your Baby, did not even mention that breast-feeding was a possible method to feed your infant. Under the heading Needs for Growth and Development they only mention formula. In the booklet Caring for Your New Infant, there are seven paragraphs devoted to breast-feeding but there are seven pages about bottle feeding and bottle preparation. There is as little and as non-commital information

as possible so they can not be accused of giving false information. For example, after a discussion of how and where to nurse the author states: "Learning the art of breast-feeding takes time and patience don't let yourself become easily discouraged." Most of the unsupportive booklets are similar, there is some information that can be classified as definitely unsupportive but most of information falls into neither category.

Among the twenty booklets, there are two that are exactly the same except for a change in pictures and some changes in words. Breastfeeding Your Baby has two editions, one written in 1969 and the other written in 1973. The changes in these editions are quite significant. The 1973 booklet was rated supportive but the 1969 book was rated unsupportive. Consider the following passages:

1969: Caring for your baby may require a lot of time in the beginning. You will find it helpful to take frequent rests during the day.

1973: While the act of caring for a newborn requires a lot of time from the beginning, many mothers feel no more restricted than any other aspect of baby care.

1969: To help develop the milk flow, alternate breasts during each feeding. Make sure each breast is empty before removing the baby to the other; ten to fifteen minutes at either breast should be sufficient.

1973: To help develop milk flow, alternate breasts during each feeding. Start with one breast for about 10 minutes then switch to the other until your baby is satisfied.

The first passage is really telling the woman she is going to be tired all the time. If the mother reads this and she has other children and knows that it will be impossible to rest she may decide immediately to bottle feed. The 1973 passage corrects this error. Looking at the second passage, the 1969 edition is limiting

the sucking time and also suggesting the impossible since there is always a trickle of milk in the breasts; the 1973 edition did not mention the need to empty the breasts and they allow the baby to suck until he is finished. There is another difference between these two booklets. The 1969 edition recommends complementary feedings and supplementary feedings. The 1973 booklet has a paragraph on supplementary feedings and there is no mention of complementary feedings. Complementary feedings are one of the most destructive recommendations to attaining an adequate milk supply. It is interesting to note that this 1969 edition is the only one that has any mention of complementary feedings. This type of feeding was very popular in the past to insure the infant of enough milk, but it has been shown to be a very bad technique. It is encouraging to see some imporvements made in the literature about breast-feeding.

Ther are four books that are classified as very supportive of breast-feeding. Two of the sample are pieces that are published by the La Leche League. There is one pamphlet that is available from the League but is not published by them. The fourth booklet is available to physicians only. The La Leche League is a world-wide organization which publishes much valuable information on breast-feeding. There largest contribution is group meetings where the expectant and nursing mother and baby come together to discuss breast-feeding and any problems. An expectant mother can observe babies being nursed and learn directly how to nurse their infant.

The League is a non profit organization. The materials that they publish are very inexpensive and are available to anyone, so the physicians could easily get these materials for their patients.

One of the reasons that so many of the books are unsupportive of breast-feeding is that the physicians rely upon the drug companies and formula comapnies to supply them with literature. Sixty percent of the twenty booklets are published by formula companies, or drug companies who sell infant formulas. It is reasonable to conclude that most of the booklets published by these companies are not supportive of breast-feeding because if they were they would write themselves out of business. Only two books are supportive of breast-feeding. One is the 1973 edition of book mentioned on the previous page the other is a book published by the Dairy Council which does and doesn't have a vested interest, as most milk formulas are made with powdered milk. The books that have no vested interests are generally more supportive of breast-feeding. The fifty percent that have no vested interests are books written primarily for the pregnant women. (See table 4.)

Another dimension to our study is the distribution of these booklets. Are most of the physicians giving these booklets with unsupportive information? This is a complicated aspect because most of the physicians give more than one booklet which is quite necessary as a book written about breast-feeding will have very little information on prenatal care and vice versa.

In examining the five most popular books, one is very

TABLE 3. RATINGS OF BOOKS WITH VESTED INTERESTS

Rating	No.	%
Very Supportive	0	0
Supportive	2	17
Ambivalent	3	25
Unsupportive	2	17
Very Unsupportive	5	41
Total	12	100

TABLE 4. RATINGS OF BOOKS WITHOUT VESTED INTERESTS

Rating	No.	%
Very Supportive	4	50
Supportive	0	0
Ambivalent	0	0
Unsupportive	4	50
Very Unsupportive	0	0
Total	8	100

supportive and is given by 16 percent of the physicians; three are unsupportive and are given by 47 percent, 16 percent, and 14percent respectively; one book is ambivalent and it is used by 20 percent of the physicians. This information is very confusing. The most popular book, A Doctor Discusses Pregnancy is not supportive of breast-feeding but 34 percent of the doctors who use this book also use A Doctor Discusses Breast-feeding, which is very supportive The few pages that are not supportive in one book are compensated by a book that is supportive. Looking at the opposite end of the list of popular books, there are three which are rated very supportive and are given by only one physician. One book is rated very unsupportive and one physician uses it . One physician uses a book that is supportive. Again, this information does not say much alone as the other books given with these are not known. Table 5 outlines the distribution of information based upon what combination of books given.

Only two physicians use very unsupportive information exclusively. Nine give unsupportive information. If we add the physicians who either gave no infomation or gave none that quallified for this study, there is a total of 34 percent or 18 physicians who do not give information which is supportive of breast-feeding. Adding all the ambivalent and mixed 21 physicians or 38 percent give somewhat confusing advice. Only 29 percent give any supportive of

TABLE 5. - DISTRIBUTION OF INFORMATION BASED UPON COMBINATIONS GIVEN

Physicians giving unsupportive information	No.	%
Only Unsupportive Given	9	16
Only Very Unsupp. Given	2	4
No Information Given	6	11
Did not Cooperate	1	2
Total	18	33
Physicians giving ambivalent information	**No.**	**%**
Only Ambivalent Given	2	4
Ambivalent + Unsupportive Given	8	14
Ambivalent + Very Unsupportive Given	1	2
Mixed Information Given	10	18
Total	21	38
Physicians giving supportive information	**No.**	**%**
Only Very Supportive Given	2	4
Very Supportive + Unsupportive Given	13	23
Supportive + Very Unsupportive Given	1	2
Total	16	29
Totals	55	100

breast-feeding.

One can only surmise the reasons why the physicians do not give supportive information about breast-feeding. The obstetrician can pass off the duty to give information to the pediatrician, but the family practice physician usually takes care of both mother and child. Table 6 shows that 51 percent of the physicians rely on information supplied by the drug companies and formula companies. They just do not have the time to evaluatebooks for their patients. The other 36 percent are probably using one of the Doctor Discusses series or they have taken the time to select a book that they know will inform the women properly.

This study has suggested many studies which could follow this study. How informed are the physicians about breast-feeding? A normative questionaire asking several questions about management techniques might give some answers. Also, a study of what the pediatricians do as far as information and support for the nursing mother, especially the one who experiences difficulty. How many would help increase the supply or treat the women so weaning would not be necessary. All these problems are real to the mothers who want to breast-feed but who cannot seem to get any help.

TABLE 6. DISTRIBUTION OF INFORMATION BASED UPON INTERESTS OF PUBLISHER

Phy. give info with vested interests	No.	%
Family Practice	11	20
O. B.	2	4
Total	13	24
Phy. give info. without vested interests	**No.**	**%**
Family Practice	14	25
O. B.	6	11
Total	20	36
PHY. give both	**No.**	**%**
Family Practice	6	11
O. B.	9	16
Total	15	27
Phy. did not give info.	6	11
Phy. did not cooperate	1	2
Totals	55	100

CHAPTER IV

SUMMARY, FINDINGS, AND CONCLUSIONS

There is a back to nature movement in the United States. Many couples are desiring to feed their infant the natural way. The problem is that these couples, especially the women have no models, as their mothers did not breast-feed neither did very many other women when they were growing up. Now, the women have to read about how to breast-feed or learn from friends.

This study was designed to discover if the information a new mother receives from her physician is supportive of breast-feeding. She will probably read this literature before she will read any other literature.

For this study, the physicians in the South Bend Mishawaka area were chosen. The free materials that they give to expectant mothers was obtained from each physician. A content analysis was used to detrimine the supportiveness of each booklet towards successful breast-feeding. Successful breast-feeding was defined to be a very natural function, when the baby is hungry feed him, let him nurse until he is satisfied. There is no worry about how much milk he is getting or if there is enough milk. Both mother and child enjoy the experience. Unsuccessful breast-feeding is a type that is common of the woman in the United States. She imposes artificial schedules, sucking limits, uses pacifers, worries whether she has enough milk, worries why the baby does not seem satisfied, she may experience pain, and frustration. All this

leads to premature weaning. The experience is not an enjoyable experience for mother or baby.

Three main comparisons were established in order to evaluate t the booklets. These were: 1) A comparison between the pictures of mothers breast-feeding and mothers bottle feeding; 2) A comparison between pages on breast-feeding and bottle feeding; 3) A comparison between the supportive statements and the unsupportive statements. A percentage was then obtained from the three comparisons. A rating was detrimined from each comparison, the third comparison being the most important was multiplied by 3. The mean of the ratings detrimined the final rating of each booklet. The arbitrary ratings were given from these percentages:

80-100 Very Supportive or 1

60- 79 Supportive or 2

40- 59 Ambivalent or 3

20- 39 Unsupportive or 4

0- 19 Very Unsupportive or 5

FINDINGS

The following findings were detrimined after the analysis the the booklets:

1. There were fifty- five physicians in South-Bend -Mishawaka that cared for pregnant women. They gave about 100 pieces of free literature. Twenty pieces qualified for this study.
2. The greatest number of the booklets were unsupportive

of successful breast-feeding. 55 percent were unsupportive, 30 percent were supportive; and 15 percent were ambivalent.

3. Most of the unsupportive booklets give very little information, because they are written for another purpose.

4. Sixty percent of the booklets are published by formula companies.

5. The most popular book A Doctor Discusses Pregnancy is not supportive of successful breast-feeding. Sixty percent of the first five populat books are unsupportive. One booklet or 20 percent of the top five is very supportive.

6. Thirty-three percent of the physicians give only unsupportive information to their patients.

7. Thirty-eight percent of the physicians give ambivalent information.

8. Twenty-nine percent of the physicians give some supportive information.

9. Twenty-four percent of the physicians give information supplied by the formula companies.

10. Thirty-six percent of the physicians give information that does not have vested interests.

11. Twenty- seven percent give both vested interest and with out vested intrests books.

12. The booklets with vested interests are mainly unsupportive. Forty- one percent are very unsupportive; 0 are very supportive; 25 percent are ambivalent; 17 percent are unsupportive.

13. The booklets that have no vested interests are 50 percent supportive; and 50 percent Unsupportive.

CONCLUSIONS

Based upon the data, and the analysis and the findings, these are the conclusions:

1. There is supportive information for successful breast-feeding available, from the physicians in the area.
2. There has been some progress made in informing the woman about breast-feeding, but much more is needed.
3. Pregnant woman will need to "shop"for a physician who is supportive of successful breast-feeding.

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CRITERIA FOR DETERMINING SUPPORTIVE-INFORMATION

1. There should be some information on how to improve the protractibility of nipples if they tend to invert.

2. There should be some information about how to toughen nipples without causing physicial discomfort. Also, an explanation of how to express colustrum.

3. The pamphlet should give advise about how to handle sore nipples, because they are quite normal for the first few eays. Such advise may include: use of lanolin to help ease soreness; warnings not to limit suckingtimes, easy slow nursing is desirable.

4. A description of colostrum and it importance is helpful.

5. An explanation of how the let-down reflex and how the breast functions is also necessary information.

6. There should be information about how to begin feeding the baby. The information may include the following: The baby should nurse as soon as possible after birth, a heavily anesthetised mother will have a sleepy, and tired baby because the drugs pass through the placenta. A tired and sleepy baby may need some special treatment to help it nurse, same is true of the screaming baby. The emphasis should be that these problems are common and the baby will soon be eating eagerly.

7. The baby should be fed on demand. The necessity of this should be explained.

8. Unlimited sucking should be recommended. There might be some suggested limits for the first few nursings, but not less thn five minutes.

9. Feeding form both breasts and alternating breasts should also be recommended.

10. Diagrams and or clear explanations on how to express breast milk should be included in pamphlet.

11. No supplements should be recommended. The breast-fed infant does not need water, cereal, or any other solids for six months. Breast milk is the perfect food for even a year if it is supplemented with iron.

12. There should be explanations of some common problems and how they can be solved without weaning.

13. Some rationale for breast-feeding should be given.

14. Indefinite, gradual weaning should be recommended. The time to wean is a private decision between the parents and the baby.

15. Any comments which were very supportive, but not mentioned above.

CRITERIA FOR DETERMINING UNSUPPORTIVE INFORMATION

1. Information stating that women who have inverted nipples cannot nurse.
2. Suggustions for toughening nipples which are harsh and cause pain. Such advise may include: use of brush or rough wash cloth.
3. Suggustions for treatment of sore nipples that dry for example, use of soap, alcohol or benzoiane.
4. Information stating that some women are too nervous to nurse. Or comments that tension causes the milk to dry up.
5. Any suggustions or advise that restricts a mother such as necessity for rest and relaxation or special diets. (All new mothers need rest and nutrious food.)
6. Information advising a fixed feeding schedule. Or information stating that all children settle down into a 3-4 hour schedule.
7. Advise given on how to end night feedings. Or statements suggesting that all babies sleep through the night at certain age.
8. Advise limiting sucking times, or suggusting fixed sucking times.
9. Advise to empty or express any remaining milk in the breasts.
10. Advise suggusting that the baby be weighed before and after each feeding to detrimine if he is getting enough.
11. Information that advises the mother to wash her nipples before and after each feeding.
12. Any suggustions of supplementary feedings, either before the milk comes in or after it comes in, to make sure infant gets enough or if supply is scanty.
13. Lists of women or cases of women that cannot nurse, eg. twins or premature birth, or Caersean Sections. (These are problems but most determined women can nurse successfully.)
14. Definite weaning times are suggested, eg. most women nurse for six weeks or the baby should be weaned by. . .
15. Advantages are listed but discounted or equated with bottle feeding advantages.
16. Any comments which are very unsupportive but not mentioned above.

CONTENT ANALYSIS WORKSHEET

Bibliographic information:

_____

Physicians:

1 2 ~~3 4 5~~ 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

27 28 29 30 31 32 33 34 35 36 37 38

A B C D E F G H I J K L M N O P Q R

_____

No. pages in book_____

No. pages infant feeding _____

No. pages bottle feeding and bottle preparation_____

No. pages breast feeding and breast _____

Percent breast/infant feeding _____

Rating _____

No. photos or drawings of mothers bottle feeding _____

No. photos or drawings of mothers breast feeding _____

Percent breast/all _____

Rating_____

Percent supportive/nonsupportive _____

Rating_____ x3

Final rating of book_____
3 ratings/5

Percent of physicians give the book _____

Final rating graphed:

_____

1 2 3 4 5

CHECKLIST

VERY SUPPORTIVE	VERY NON-SUPPORTIVE
Inverted nipples	Troubles with inverted nipples
Toughen nipples	Harsh treatment
Sore nipples	Use of drying agents
Colostrum	Let down- too nervous
Let-down reflex- relax	Fixed schedules
Demand feeding	Limited sucking
Unrestricted sucking -both sides	Must empty breasts
Why express	Weigh the baby
No supplements	Add supplements
Gives confidence	Lists false contraindications
Emphasizes the advantages	Nursing can be difficult
Easy soultions to problems	Lists problems-no solutions
Breast is best	Breast=bottle
Indefinite weaning	Definite weaning

Total no. of responces_____

%_____

80-100=very supportive	1
60-79= supportive	2
40-59= ambilivant	3
20-39=non-supportive	4
0-20=very non-supportive	5